<u>WHAT IS CLAIMED IS:</u>

1.   A system for implementing a panorama mode in an imaging device, comprising:

5   a panorama manager configured to selectively generate one or more
                        image parameters corresponding to adjacent frames of image
                        data that are captured by said imaging device; and
              a processor that controls said panorama manager to thereby implement
                        said panorama mode.

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2.   The system of claim 1 wherein said imaging device is implemented as one of a digital still camera and a digital scanner device.

3.   The system of claim 1 wherein an image-stitching software program
15   combines said adjacent frames of image data to form a composite panorama image.

4.   The system of claim 3 wherein said panorama manager selects said one or more image parameters to avoid an excessive variation between said
20   adjacent frames of image data to thereby create a cohesive composite image quality for said composite panorama image.

5.   The system of claim 1 wherein said one or more image parameters include at least one of an exposure parameter, a white-balance parameter, a
25   brightness parameter, a contrast parameter, a sharpness parameter, a hue parameter, a saturation parameter, and a color balance parameter.

6.   The system of claim 1 wherein said imaging device includes a capture subsystem, a viewfinder, and a control module, said control module having a
30   processor, a memory, and an input/output interface.

7.	The system of claim 6 wherein said memory includes at least one of an application software program, an operating system, a panorama manager, frame buffers, a display manager, image data, an auto-correction module, and said image parameters.

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8.	The system of claim 1 wherein a system user selects a panorama mode for operating said imaging device.

9.	The system of claim 8 wherein said imaging device captures and stores

10	an initial frame of said adjacent frames of said image data.

10.	The system of claim 9 wherein said panorama manager stores an initial image parameter value that corresponds to said initial frame of said image data.

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11.	The system of claim 10 wherein said panorama manager disables an auto-correction module which automatically selects said one or more image parameters for said imaging device.

20	12.	The system of claim 11 wherein said imaging device captures all of said adjacent frames of said image data by utilizing said initial image parameter value from said initial frame of said image data.

13.	The system of claim 8 wherein said panorama manager disables an

25	auto-correction module which automatically selects said one or more image parameters for said imaging device.

14.	The system of claim 13 wherein a display manager and said panorama manager display a user interface that prompts said system user to perform a

30	sweep procedure across a panorama target area with said imaging device.

15.   The system of claim 14. wherein said imaging device samples and stores a parameter range of current image parameter values from said panorama target area.

5   16.   The system of claim 15 wherein said panorama manager selects a global parameter value from said parameter range of current image parameter values.

17.   The system of claim 16 wherein said panorama manager selects said
10   global parameter value by calculating one of an average value of said parameter range and a mean value of said parameter range.

18.   The system of claim 16 wherein said panorama manager selects said global parameter value by comparing said parameter range of current
15   parameter values to a pre-determined global parameter lookup table.

19.   The system of claim 16 wherein said imaging device captures said adjacent frames of said image data by utilizing said global parameter value.

20   20.   The system of claim 8 wherein said imaging device captures and stores an initial frame of said image data into frame buffers at a prior frame location.

21.   The system of claim 20 wherein said imaging device captures and
25   stores a next frame of said image data into said frame buffers at a current frame location.

22.   The system of claim 21 wherein said panorama manager performs a transition processing procedure on said image data from said prior frame
30   location of said frame buffers.

23. The system of claim 22 wherein said transition processing procedure includes gradually modifying said one or more image parameters from said image data in said prior frame location of said frame buffers to thereby transition from original values of said one or more image parameters at a first

5 edge of said image data and linearly progressing to matching parameter values at a second edge of said image data, said second edge being adjacent to said image data in said current frame location of said frame buffers, said matching parameter values being equal to said one or more image parameters of said image data in said current frame location.

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24. The system of claim 22 wherein said transition processing procedure proceeds in a sequence that is selected from one or more of a left-right sequence, a right-left sequence, an up-down sequence, and a down-up sequence.

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25. The system of claim 22 wherein said imaging device archives said image data from said prior frame location of said frame buffers after said transition processing procedure is completed.

20 26. The system of claim 25 wherein said panorama manager transfers said image data from said current frame location of said frame buffers into said prior frame location of said frame buffers after said imaging device archives said image data that has been processed during said transition processing procedure.

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27. The system of claim 26 wherein said imaging device repeatedly captures and processes successive pairs of said adjacent frames of said image data using said transition processing procedure.

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28. The system of claim 8 wherein said imaging device captures and stores all of said adjacent frames of said image data, and wherein said panorama manager performs a global transition processing procedure on said all of said adjacent frames in a substantially concurrent event.

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29. The system of claim 1 wherein an image processing program on a remote computer device performs a transition processing procedure on said adjacent frames of said image data to create a cohesive combined panorama image.

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30. The system of claim 1 wherein said imaging device captures said adjacent frames of said image data in a selectable sequence that includes at least one of a left-right sequence, a right-left sequence, an up-down sequence, and a down-up sequence.

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31. A method for implementing a panorama mode in an imaging device, comprising the steps of:

 utilizing a panorama manager to selectively generate one or more image parameters corresponding to adjacent frames of image data that
20   are captured by said imaging device; and
 controls said panorama manager with a processor to thereby implement said panorama mode.

32. The method of claim 31 wherein said imaging device is implemented as 25 one of a digital still camera and a digital scanner device.

33. The method of claim 31 wherein an image-stitching software program combines said adjacent frames of image data to form a composite panorama image.

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34.   The method of claim 33 wherein said panorama manager selects said one or more image parameters to avoid an excessive variation between said adjacent frames of image data to thereby create a cohesive composite image quality for said composite panorama image.

35.   The method of claim 31 wherein said one or more image parameters include at least one of an exposure parameter, a white-balance parameter, a brightness parameter, a contrast parameter, a sharpness parameter, a hue parameter, a saturation parameter, and a color balance parameter.

36.   The method of claim 31 wherein said imaging device includes a capture subsystem, a viewfinder, and a control module, said control module having a processor, a memory, and an input/output interface.

37.   The method of claim 36 wherein said memory includes at least one of an application software program, an operating system, a panorama manager, frame buffers, a display manager, image data, an auto-correction module, and said image parameters.

38.   The method of claim 31 wherein a system user selects a panorama mode for operating said imaging device.

39.   The method of claim 38 wherein said imaging device captures and stores an initial frame of said adjacent frames of said image data.

40.   The method of claim 39 wherein said panorama manager stores an initial image parameter value that corresponds to said initial frame of said image data.

41.   The method of claim 40 wherein said panorama manager disables an auto-correction module which automatically selects said one or more image parameters for said imaging device.

42. The method of claim 41 wherein said imaging device captures all of said adjacent frames of said image data by utilizing said initial image parameter value from said initial frame of said image data.

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43. The method of claim 38 wherein said panorama manager disables an auto-correction module which automatically selects said one or more image parameters for said imaging device.

10 44. The method of claim 43 wherein a display manager and said panorama manager display a user interface that prompts said system user to perform a sweep procedure across a panorama target area with said imaging device.

45. The method of claim 44 wherein said imaging device samples and
15 stores a parameter range of current image parameter values from said panorama target area.

46. The method of claim 45 wherein said panorama manager selects a global parameter value from said parameter range of current image
20 parameter values.

47. The method of claim 46 wherein said panorama manager selects said global parameter value by calculating one of an average value of said parameter range and a mean value of said parameter range.

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48. The method of claim 46 wherein said panorama manager selects said global parameter value by comparing said parameter range of current parameter values to a pre-determined global parameter lookup table.

30 49. The method of claim 46 wherein said imaging device captures said adjacent frames of said image data by utilizing said global parameter value.

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50. The method of claim 38 wherein said imaging device captures and stores an initial frame of said image data into frame buffers at a prior frame location.

5   51. The method of claim 50 wherein said imaging device captures and stores a next frame of said image data into said frame buffers at a current frame location.

52. The method of claim 51 wherein said panorama manager performs a
10 transition processing procedure on said image data from said prior frame location of said frame buffers.

53. The method of claim 52 wherein said transition processing procedure includes gradually modifying said one or more image parameters from said
15 image data in said prior frame location of said frame buffers to thereby transition from original values of said one or more image parameters at a first edge of said image data and linearly progressing to matching parameter values at a second edge of said image data, said second edge being adjacent to said image data in said current frame location of said frame buffers, said
20 matching parameter values being equal to said one or more image parameters of said image data in said current frame location.

54. The method of claim 52 wherein said transition processing procedure proceeds in a sequence that is selected from one or more of a left-right
25 sequence, a right-left sequence, an up-down sequence, and a down-up sequence.

55. The method of claim 52 wherein said imaging device archives said image data from said prior frame location of said frame buffers after said
30 transition processing procedure is completed.

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56.   The method of claim 55 wherein said panorama manager transfers said image data from said current frame location of said frame buffers into said prior frame location of said frame buffers after said imaging device archives said image data that has been processed during said transition processing

5   procedure.

57.   The method of claim 56 wherein said imaging device repeatedly captures and processes successive pairs of said adjacent frames of said image data using said transition processing procedure.

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58.   The method of claim 38 wherein said imaging device captures and stores all of said adjacent frames of said image data, and wherein said panorama manager performs a global transition processing procedure on said all of said adjacent frames in a substantially concurrent event.

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59.   The method of claim 31 wherein an image processing program on a remote computer device performs a transition processing procedure on said adjacent frames of said image data to create a cohesive combined panorama image.

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60.   The method of claim 31 wherein said imaging device captures said adjacent frames of said image data in a selectable sequence that includes at least one of a left-right sequence, a right-left sequence, an up-down sequence, and a down-up sequence.

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61.   A system for implementing a panorama mode in an imaging device, comprising:

    means for selectively generating one or more image parameters corresponding to adjacent frames of image data that are captured

30   by said imaging device; and

    means for controlling said means for cohesively generating to thereby implement said panorama mode.

62.　A computer-readable medium comprising program instructions for implementing a panorama mode by performing the steps of:

　　　utilizing a panorama manager to selectively generate one or more image

5　　　　　parameters corresponding to adjacent frames of image data that

　　　　　are captured by said imaging device; and

　　　controls said panorama manager with a processor to thereby

　　　　　implement said panorama mode.

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